MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY
UNITED STATES DEPARTMENT OF AGRICULTURE

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WHAT KIND OF ITEMS SHOULD BE PUBLISHED IN THE MONTHLY LETTER?

The question as to the kind of items that should be included in the Monthly letter of the Bureau of Entomology was discussed recently at a meeting of the Bureau Committee on Manuscripts, at the suggestion of the Acting Chief of Bureau, Dr. Quaintance. The opinion expressed or concurred in by all present was that the purpose of this publication is to make known to workers in the Bureau the professional activities of other workers in the Bureau, but that items relating to important insect occurrences, injuries, etc., should be published promptly and at first hand in the Insect Pest Survey Bulletin and not in the Monthly Letter. Recent numbers of the Insect Survey Bulletin have quoted items published in the Monthly Letter bearing on insect occurrences. In future such items, furnished by field workers and others, should be forwarded to the branch or division of the Bureau involved, and by the chief of such branch or division transmitted directly to Mr. J. A. Hyslop, who has charge of the Insect Pest Survey, and not included in copy submitted to the Editorial Office for publication in the Monthly Letter. This should make it possible to publish these items more promptly in the periodical in which they would be looked for naturally and prevent a greater or less amount of duplication and waste.

Items desired for the monthly Letter include records of appointments, assignment to special projects, resignations, transfers, notes on special technique, apparatus, and methods, special activities of Bureau workers such as the preparation of exhibits, giving of talks and lectures, attendance at meetings, etc., and visits of domestic or foreign entomologists, their purpose and results.

If kept within the scope originally intended, it is believed that the Monthly Letter will not become unduly long, which might tend to make it less generally read.--Ed.

FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, Senior Entomologist, in Charge

"On July 8, writes E. J. Newcomer,"a specimen of *Carpocapsa pomonella*, var. *simpsonii* Busck was found in the rearing jars at the Yakima, Wash., laboratory. This is the only specimen of this variety ever reared at Yakima, although over 16,000 codling moths have been reared since the laboratory was established in 1919."

R. A. Porter attended a blueberry maggot conference at Bangor, Maine, on July 18. The conference was called by the National Canners' Association for the benefit of the blueberry canners of Maine, to consider possible methods of preventing the presence of maggots in canned blueberries. The matter was very thoroughly discussed, but the present knowledge of the problem was not sufficient to warrant final conclusions or recommendations. The insect involved has been considered to be Rhagoletis pomonella Walsh, the well-known apple maggot, although the form attacking the blueberry is probably a distinct biological strain.

J. S. Houser of the Ohio Agricultural Experiment Station was a visitor at the Vincennes, Ind., laboratory on June 30 and July 1. Mr. Houser was completing a trip through the fruit sections of Arkansas, Missouri, Illinois, and Indiana for the purpose of making at first hand a study of the San Jose scale situation and the striking control of the scale which had been obtained by the use of lubricating-oil emulsion.

Visitors to the laboratory at Fort Valley, Ga., during the last month, to observe the work under way, included a group of Tennessee peach growers headed by the horticulturist of the University of Tennessee and several from South Carolina, Alabama, and Virginia.

Fred E. Brooks, in charge of the Bureau's laboratory at French Creek, W. Va., was in Washington July 23 and 24 in connection with weevil control experiments in the Department's chestnut orchard at Bell Station, Md.

CEREAL AND FORAGE INSECT INVESTIGATIONS

G. A. Dean, Senior Entomologist, in Charge

P. R. Myers visited Washington in early July in connection with an official trip into Virginia.

Prof. George A. Dean visited Boston July 6 for the purpose of inspecting the northern edge of the corn borer infestation in Maine and New Hampshire. It was observed that corn was very small at that time, and because of the backward season but little evidence of infestation was found.

The corn borer investigational work under way at Sandusky, Ohio, almost completely escaped the effects of the terrific storm which swept over that locality in the latter part of June. The most serious result of the storm was the partial wrecking of one of the motor boats assigned to the corn borer control work, which was capsized and sunk in shallow water. Arrangements have been made to raise and repair the boat.

Hiram G. Burt, a graduate of the Manhattan Agricultural College, has been appointed Junior Entomologist and assigned to the jointworm investigations under W. J. Phillips at Charlottesville, Va. Mr. Burt assumed his new duties June 30.

Adan Celaya, a graduate of the Tempe Normal School, has accepted a temporary appointment in connection with the seed chalcis investigations in the Yuma Valley.

J. R. Horton, in charge of the Wichita, Kans., station, was called into consultation on account of the grasshopper outbreak in Oklahoma during early July. At the present writing the situation seems to be under control.

W. J. Phillips visited Greensboro, N. C., July 4 to investigate an infestation of the wheat jointworm, and found a very abundant occurrence of this insect in that vicinity. An infestation of 100 per cent was found in one field.

George W. Barber, engaged as an assistant in the corn borer research work, visited Washington July 18 for the purpose of consultation and preparation of a manuscript.

L. H. Worthley, in charge of the corn borer control, left Arlington, Mass., during the week of July 25, going to Cleveland, Ohio, where he will be located for several weeks to supervise the initiation of the scouting and quarantine work in the Lake regions.

Prof. Geo. A. Dean left Washington, D. C., July 19 for a visit to Manhattan, Kans. On his return trip to Washington Prof. Dean will visit several of the field laboratories in the Middle West and inspect the corn borer scouting and quarantine work in the Great Lakes region. He expects to return to Washington about the last of August.

TRUCK CROP INSECT INVESTIGATIONS

J. E. Graf, Entomologist in Charge

C. H. Popenoe, in charge of the truck-crop insect work at the Silver Spring, Md., laboratory, visited Pomeroy, Pa., and vicinity to investigate an outbreak of insects in mushroom houses. It was first reported that mites were the cause of the trouble, but upon investigation Mr. Popenoe found that springtails were the principal insects concerned. Cooperative experiments with the mushroom growers have been initiated.

R. E. Campbell, in charge of the Alhambra, Calif., laboratory, reports that A. F. Burgess, after attending the meetings of the Pacific Slope Branch of the American Association of Economic Entomologists at Stanford University, visited the Bureau laboratory at Alhambra and the Citrus Experiment Station at Riverside.

Dr. L. O. Howard spent several days in southern California, prior to his departure for Honolulu, visiting the Bureau stations at Alhambra and Riverside, and consulting with the various entomologists, both Federal and State, located in that vicinity.

R. E. Campbell was re-elected Secretary of the Pacific Slope Branch of the A. A. E. E. for the coming year.

D. E. Fink, in charge of the Riverton, N. J., laboratory for truck-crop insect investigations, has been very successful with the use of enamel paint (auto gloss) mixed with shellac in about equal proportions in marking the Colorado potato beetle for future identifications. Painted individuals were recovered several weeks after they were liberated.

Mexican Bean Beetle

H. L. Weatherby recently returned from a scouting trip for the Mexican bean beetle through Georgia and South Carolina. At the present time he is scouting in Virginia and West Virginia.

A moving picture film of the Mexican bean beetle was taken at Birmingham, Ala., in June by Messrs. Kelly and Tucker of the Department Motion Picture Laboratory.

L. W. Brannon recently returned from Newport and other points in Tennessee.

Rodney Cecil will devote his time to life-history and biological work for the remainder of the season.

J. R. Douglass, who is conducting experiments on the Mexican bean beetle at Estancia, N. Mex., reports that the beetle injury is greatest near the mountains in which the insects hibernate --the heaviest damage being caused to bean plantings opposite the mouths of canyons. From these data Mr. Douglass believes that on emerging from hibernation the beetles follow the canyons on their way to the large valleys in which beans are grown. Flight tests are now being conducted.

Appointments, etc.

David Dunavan, who has had considerable experience in the Northwest with wireworms, has been given a temporary appointment to investigate the wireworm situation in the Yakima Valley in the State of Washington.

Wm. J. Reid, who recently received the degree of bachelor of science from Clemson Agricultural College, has been given a probationary appointment as Junior Entomologist to assist W. A. Thomas, in charge of the Chadbourn, N. C., laboratory, in the investigation of truck-crop insect problems in the Carolinas.

William M. Mingee, who for a number of years was connected with the sweet-potato weevil eradication work in southern Mississippi, has been reinstated as Junior Entomologist and will assist K. L. Cockerham in similar work along the Gulf Coast Region.

Samuel F. Potts, a graduate of Mississippi Agricultural and Mechanical College, who recently received his master's degree from the University of Maryland, has been given a temporary appointment to assist Dr. D. M. DeLong, Professor of Entomology, Ohio State University, who is conducting experiments on the Mexican bean beetle in Ohio.

W. D. Mecum's temporary appointment has been extended for an additional three months in order that Mr. Mecum may complete some very interesting and promising experiments on the control of the onion maggot, which he is conducting in the vicinity of Racine, Wis.

FOREST INSECT INVESTIGATIONS

F. C. Craighead, Entomologist in Charge

Dr. F. C. Craighead writes that one of Mr. A. F. Burgess's large sprayers, with two men to operate it, has been sent to the Yellowstone National Park to be used against the larvae of a sawfly and a tortricid, and the spruce budworm, which are defoliating extensive areas of lodgepole pine and Douglas fir. Experimental spraying will be completed about the last of July and by that time examination will be made by Mr. J. C. Evenden of the sprayed timber to note the effect on the larvae, checking up with unsprayed surrounding trees. Data will also be obtained as to whether the insects are increasing or not.

R. A. St. George left Washington May 28 to conduct cooperative studies relating to the prevention and control of insects affecting crude forest products. At Portsmouth, Va., extensive studies are being conducted to determine the effectiveness of sulphur dioxide gas, orthodichlorobenzene, and creosote in preventing and checking the attack of ambrosia beetles, or pinhole borers, in select grades of cypress which are used for partitions in batteries furnished automobiles and airplanes. At High Point, N. C., considerable control work was done in treating infested rustic furniture with orthodichlorobenzene. About a week was spent at Asheville, N. C.,with A. H. MacAndrews, of this Division, who is conducting life-history studies of bark-beetles attacking pine trees, and the seasonal cutting of various trees.

Motion pictures were taken by the Department of Agriculture under Mr. St. George's supervision of logging operations in the woods and mill at Charleston, S. C., showing the approved methods of handling pine to prevent worm-hole injury. At Savannah and Clyo, Ga., and Vicksburg, Miss., additional motion pictures were taken illustrating methods of handling gum to prevent pinhole and wormhole injury. Several pictures were made at Vicks-

burg showing methods of racking and piling lumber to prevent this character of injury. At Vicksburg extensive cooperative studies are being conducted to determine the best methods of cutting cypress to prevent borer attack.

Through cooperation with the Lumber Division of the Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce, a summary of Department Bulletin 1231 of this Branch, "Tests of Methods of Protecting Woods against Termites or White Ants," has been mailed by the Department of Commerce to 800 firms listed in their "Exporters' Index." These firms are interested in the export of lumber, poles, mill work, and furniture. Copies of the bulletin itself have been sent to commercial attaches in Latin America, the Philippines, China, India, Java, and Australia, as well as to all consuls in the Tropics. It is believed that this bulletin will be of much assistance to exporters to tropical countries.

BEE CULTURE INVESTIGATIONS

E. F. Phillips, Apiculturist in Charge

James I. Hambleton, to succeed Dr. E. F. Phillips as apiculturist in charge of Bee Culture Investigations

James I. Hambleton, who has been connected with this office since July 1, 1921, has been selected by the Secretary to succeed Dr. E. F. Phillips as Chief of Bee Culture Investigations. He will assume his new responsibilities when Dr. Phillips leaves to take charge of his new duties as Professor of Apiculture, Cornell University, about October 1.

Dr. E. F. Phillips attended the annual summer meeting of the New York State Federation of Beekeepers' Societies at Canajoharie on August 1.

J. I. Hambleton attended the summer meeting of entomologists in the vicinity of Philadelphia, in connection with other work in that region.

W. J. Nolan will attend the officers' training camp at Camp Meade, Md., the first half of August.

Dr. E. F. Phillips and James I. Hambleton will attend the Seventh International Apicultural Congress to be held in Quebec September 1 to 4, inclusive. They and other members of the Bee Culture staff have contributed papers to the program. These have already been submitted, and all papers are to be read at the Congress in both English and French. An elaborate program of papers has been arranged, as well as a series of excursions to places of interest to those in attendance, following the regular meetings of the Congress. Announcement has already been made that certain European beekeeping authorities will attend the Congress.

SOUTHERN FIELD CROP INSECT INVESTIGATIONS

F. C. Bishopp, Entomologist, Acting in Charge

E. W. Laake gave two addresses for the Farmers' Short Course at College Station, Tex., July 29, on insects affecting poultry and how to combat them.

J. L. Webb is to spend a month in field investigations in Texas. During his absence F. C. Bishopp is to act in charge of Southern Field Crop Insect Investigations.

W. E. Dove, of the Dallas Laboratory, went to Jacksonville, Fla., July 21, to investigate the horse-flies in that State. Incidental to this investigation he is taking up a very interesting piece of work in collaboration with Dr. Kirby Smith, of Jacksonville, on a little-known form of dermal myiasis which is present throughout the South. This malady is especially serious in parts of Florida.

F. C. Bishopp visited Omaha, Nebr., July 2, to appear as an expert witness in an insecticide case.

T. E. Holloway, who spent a few days in Washington in July on official business, has returned to his station at New Orleans, La.

MISCELLANEOUS INVESTIGATIONS

(Items from the National Museum contributed by S. A. Rohwer)

H. G. Barber, of Roselle, N. J., has been employed during the month of July as a specialist in Hemiptera, and during this period has arranged and determined the Nearctic collection of the family Coreidae. He has assembled all of the material belonging to this family from the Neotropical region and sorted it into genera.

This month the Museum received through Dr. A. G. Böving from E. Rosenberg, Copenhagen, Denmark, specimens of the larvae and other stages of seven species of Danish beetles for addition to the collection.

During the month of July Dr. W. D. Funkhauser returned the last lot of Membracidae belonging to the Goding collection. The Goding collection had been sent to Dr. Funkhauser for study in three different lots. Dr. Funkhauser has kindly examined each specimen, corrected the identification, and prepared a very complete report, so that it will be possible to incorporate this collection with the rest of the Museum material of the family Membracidae.

Dr. H. G. Dyar returned July 29 from a three months' trip to the Pacific coast, where he went in search of the larval stages of two mosquitoes,

Aedes aloponotum and Aedes ventrovittis, which live in the high mountain regions. Dr. Dyar was successful in getting a large number of larvae of aloponotum, but did not find that stage of ventrovittis, although he found many adults. While in the west he visited Bakersfield, Calif., where mosquito work is being carried on by Major Charles K. Badger.

Dr. W. M. Mann sailed for Europe on July 19, to be gone for several months. He will go to Spain in connection with some work for the Federal Horticultural Board. He also intends to visit Dr. Wasmann, the eminent Dutch entomologist, at St. Ignatius Kollege, Valkenburg, Holland, for the purpose of studying his collection of ants and beetles.

LIBRARY

Mabel Colcord, Librarian

New Books

Doidge, E. M.
A preliminary check list of plant diseases occurring in South Africa. Pretoria, Government Printing & Stationery Office, 1924. 56 p. (Botanical Survey of South Africa. Memoir 6).

Egypt. Dept. of agriculture. Technical & Scientific Service.
Statistics of pink boll worm occurrence from 1918 to 1922 . . . Cairo, Government Press, 1923. 19 p. (Bulletin 27. Entomological Section).

Eidmann, H.
Untersuchungen über die Morphologie und Physiologie des Kaumagens von Periplaneta orientalis L. Zeitschrift für wissenschaftliche Zoologie, v. 122, p. 281-307, Apr. 17, 1924. Literaturverzeichnis, p. 305-307.

Ghosh, C. C.
The palm beetles in Burma with notes on other palm pests. Rangoon, Superintendent, Government Printing, 1923. 38 p., 9 pl. (Dept. of Agr. Burma. Bul. 19.)

Gruhl, K.
Paarungsgewohnheiten der Dipteren. Zeits. für wissenschaftliche Zoologie, v. 122, p. 205-280, illus. Apr. 17, 1924. Literaturverzeichnis, p. 278-280.

Jarvis, Edmund.
Notes on Queensland cane-insects and their control. Brisbane, A. J. Cumming, Gov't Printer, 1923. 99 p., illus. (Queensland Bureau of Sugar Experiment Stations. Division of Entomology. Bul. 17.)

Juillet, A.
Le pyrèthre - insecticide de Dalmatie-origine, culture principes actifs, application à l'agriculture . . . Paris, April, 1924. 236 p., 5 pl.

Kellogg, Vernon.
Evolution. N. Y., Appleton & Co., 1924. 291 p.

Lapie, Georges.
Les chenilles venimeuses et les accidents éruciques. Paris, Librairie des Sciences Naturelles, Leon l'Homme, éditeur, 1923. 191 p.

Lutz, F. E.
Apparently non-selective characters and combination of characters, including a study of ultraviolet in relation to the flower visiting habits of insects. Annals of the New York Academy of Sciences, v. 29, p. 181-283, pl. III-IX, April 15, 1924.

McFarland, J. H.
Roses and how to grow them. N. Y., Doubleday, Page & Co., 1924. 151 p., (Amateur's book of the Garden series). Combatting rose insects and diseases, p. 46-61.

Mitra, K.
Prepotency of stimuli- a study in the behaviours of house flies. Calcutta, 1924. (Univ. of Calcutta. Jour. Dept. of Science, v. 6. Zool., p. 1-9).

Pellett, F. C.
American honey plants . . . Ed. 2, rev. & enl. Hamilton, Ill., American Bee Journal, 1923. 392 p., illus., plates.

Perrier, Remy.
La faune de la France illustrée. III. Myriopodes, insectes inferieurs. Paris, Librairie Delagrave, 1923. 153 p.

Petch, Thomas.
Fungi parasitic on scale insects. Trans. British Mycol. Soc., v. 7, p. 55-58, 1921.

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Studies in entomogenous fungi. Trans. British Mycol. Soc., v. 7, p. 89-132, 1921.

Platt, E. E.
List of food plants of some South African lepidopterous larvae. South African Jour. Nat. Hist., v. 3, p. 65-138, 1921.

Rietz, H. L. et al.
Handbook of mathematical statistics. Boston, Houghton Mifflin Co. (Riverside Press, Cambridge), 1924. 221 p.

Seguy, Eugene.
. . . Diptères anthonomyides. Paris, P. Lechevalier, 1923. 393 p., illus. (Federation Francaise des Sociétés de Sciences Naturelles. Office Central de Faunistique. Faune de France.) Index bibliographique: p. 373-380.

Singh, Hem.
On the anatomy and bionomics of the red cotton bug, Dysdercus cingulatus (Fabr.). Asiatic Society of Bengal Journal n. s. v. 19, 1923, no. 1, p. 15-42, 9 pl. 1924.

Skaife, S. H.
The bees and wasps of Kirstenbosch. Jour. Botan. Soc. South Africa, Cape Town, pt. 10, 1924, p. 13-19, pl.

Sociedad rural Argentina, Buenos Aires. Instituto Biologico.
Garrapatizacion y tristeza. Investigaciones experimentales (II comunicacion). Por los dres. F. Rosenbusch y R. Gonzalez. Buenos Aires, 1923. 24 p.,illus.

Walker, Francis.
Translation of synoptical arrangements of some European families and genera of Hymenoptera. . . London, E. W. Janson, 1874. 48 p.